The Texas Capitol — *E. M. Schiwetz*

The Humble Way

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KEEPING WELL AT WORK

STRIPPED of its austere syllables and reduced to warm and friendly terms, *industrial hygiene* is the science of helping employees keep well at work.

Since this field is so broad and complicated, those who devote themselves to it must be dedicated people. Ideally, they should be part doctor, part diplomat, and part detective. But no matter how those three parts are put together, the industrial hygienist still spends virtually all of his time at the laudable task of preventing trouble.

This is vital work, this business of being a constant watchdog over employee health. It is not so spine-tingling, perhaps, as tracing down that rare offender, or battling that rare exception which proves the rule. But Humble's industrial hygienists are not in their jobs for any casual excitement it might bring. They are more pleased with the comforting satisfaction of doing their job, and doing it well. And that effort manifests itself in sound, day-to-day recommendations on health safeguards arising from their skill and training—as well as from the best equipment money can buy.

As an example of this emphasis on prevention, the Company's industrial hygiene engineer is regularly called on to inspect, for health reasons, such things as additives used in products, hand cleaners, solvents designed to remove wax from oil wells, and hundreds of other materials. Not long ago, he was asked to advise on a wax solvent offered for sale to the Company for use in its oil wells. The product proved it would do an excellent job, but it was too dangerous, chemically, to the men who would have to use it. As a result of this study the product was not recommended, and the Production Department chose another solvent.

In rare cases, of course, something may slip by the tightest defenses. But when it does, regular precautionary measures set up under the Company's industrial hygiene program will bring the trouble quickly to bay and disarm it.

By way of example, regular checks of body fluids from Humble employees at one operation turned up a man with evidence of threatening lead poisoning. Though his condition was not alarmingly dangerous, the danger signals had been hoisted, and it was a good

Nostalgic charm of the Old South is captured in this photograph of a fine ante-bellum plantation home near the Mississippi River north of New Orleans.

INDUSTRIAL HYGIENE

Industrial hygiene work within the Company is a function of Humble's Medical Division, and is carried out under the general supervision of Dr. V. C. Baird, Chief Physician. Comprising the staff for this work are Mr. J. W. Hammond, Industrial Hygiene Engineer; Mr. F. H. Pretsch, Industrial Hygienist at Baytown Refinery; and Mr. G. T. Taylor, Industrial Hygiene Analyst, also at Baytown.

During the past decade at Humble, industrial hygiene has been increasingly emphasized as a field of preventive medicine. The aim, of course, is to stay ahead of trouble by preventing its outbreak. Air, materials, and specimens are scrupulously checked for possible contaminants. A hygienist checks, with the assistance of the supervisors and other staff groups, working spaces where trouble may lurk, especially where dangerous chemicals or other materials are used as a part of daily routine.

Where necessary, control features are designed and methods of work practice are recommended. To make doubly sure that no harm comes to employees, those who work in such surroundings or with toxic materials are tested at periodic intervals. For example, people who work with mercury, leaded paints, tetraethyl lead, and other potentially dangerous substances are examined as regularly as necessary to make sure they are not absorbing dangerous amounts into their bodies.

The work of the industrial hygiene engineer also takes him into Company field communities where, in conjunction with the Civil Engineering Division and others, the water and sewage disposal systems are checked. He also advises on insect and rodent control, counsels on good practice in the use of herbicides and insecticides, and generally sees to it that the health of the community is safeguarded. Any serious illness or dread communicable disease in the community may bring him immediately to the scene—and so far there has been nothing resembling an epidemic in any field community.

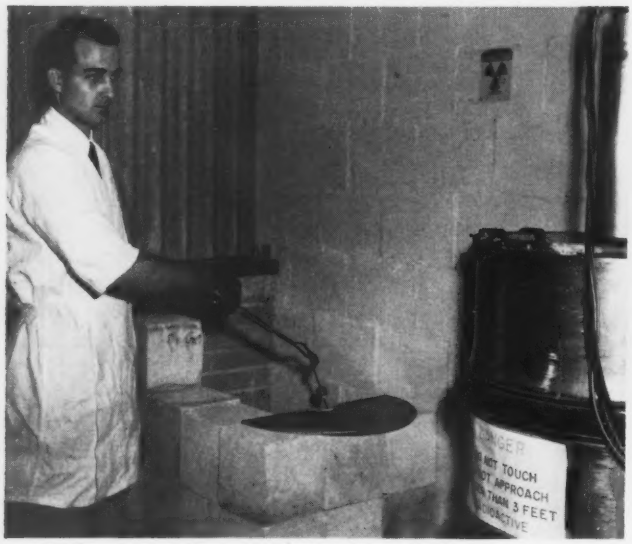
thing for him that the precautionary check had been made.

Industrial hygienists from Humble's Medical Division set to work on the case at once. But, disappointingly enough, nothing could be ferreted out from the man's regular work and blamed as the offender. Again and again, the scientists went over the job materials and the job conditions. No lead-poisoning possible here, was their verdict!

Later, it was determined that the lead poisoning came from a red-lead primer that he was using to spray farm machinery. Once the source was pointed out to him, he discontinued the practice that might have been extremely harmful to him. For him, the hole in the dike had been plugged in time to prevent a flood of trouble.

Cooperative Effort

Industrial hygiene activities are so many and so varied that Humble's staff could not possibly carry out the Company's extensive program without a great deal of help from others. They depend, to a large extent, on the cooperation of other groups in the Com-



Employees in research are protected from radioactive rays by shields (lead, concrete, etc.) not penetrated by rays.

Sewage effluent is carefully checked to assure adequate treatment; often equals quality of the receiving stream.

pany, on the approval of staff recommendations by management, as well as on independent scientists and organizations.

In the Production Department, industrial hygienists cooperate with Civil Engineering personnel on controlling sanitation, insects which may carry disease, water supplies, sewage disposal, herbicides, insecticides, and ventilation. Two complete rounds of inspections have been made of Company field communities; the first completed about five or six years ago, the second completed last year. Between routine inspections, of course, any trouble or potential trouble at any location may bring the industrial hygiene engineer hurrying to the spot.

Last year, Houston research groups moved into new quarters in the Houston Research Center. Before the move was completed, a new safety manual had been written, and the industrial hygiene engineer served with representatives of other groups in writing the manual. It is his responsibility, also, to cooperate with safety engineers on problems which involve health hazards as well as safety hazards.

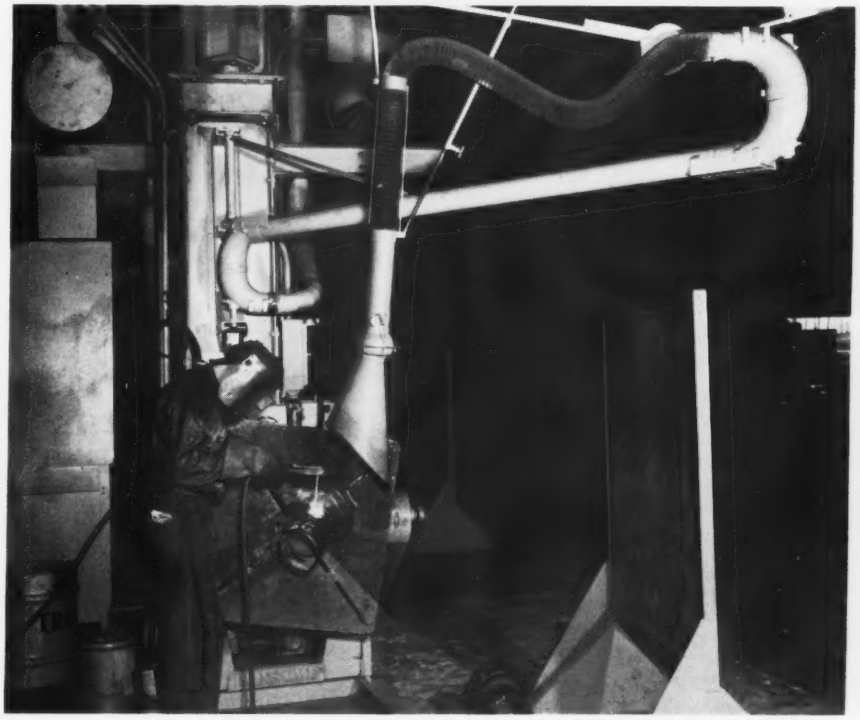
Company committees offer much help and advice in analyzing and solving health problems. Company-wide, the Toxicity Committee (of which the industrial hygiene engineer is a member) serves this purpose by studying and making recommendations on questionable materials used in Company operations. At Baytown, the industrial hygiene staff works closely with the refinery's Health and Sanitation Committee.

On some occasions, to help solve particular problems, Humble has made use, on a fee basis, of personnel and facilities at the Houston Medical Center, Baylor Medical College, the University of Texas Medical School, the University of Houston, independent research organizations, and others.

A Fertile Field

One of the most fertile fields for industrial hygiene in all the Company's operations is Baytown Refinery. Here, closely compacted, are to be found all the elements which challenge the hygienist's resources and skills. Here are complicated refining processes using all sorts of acids, caustics, and other chemical compounds. Here are all the potential trouble-makers of heat, cold, and fatigue. Here, too, are the dusts,

Vacuum above this planer in the Main Office carpenter shop sucks up dust and fine particles of wood to protect operator; conveys the refuse to a collection bin.



Ventilating device used in welding operations at the Baytown Refinery Central Shops protects welders by removing irritating fumes, gases from working area.

Mercury collection traps used in repairing meters at the Baytown Refinery instrument shops protect employee health. If allowed to spill on floors, mercury seeks crevices and small cracks, vaporizes to give off hazardous fumes in air.

gases, paints, and sprays which could cause untold misery if not held in proper check.

With the industrial hygiene staff working through the supervisory and safety groups to hold a tight rein on all these materials and working conditions, any one of which could cause great trouble if left unguarded, work at Baytown Refinery goes on with an amazingly low accident and injury rate. The figures themselves prove that *the employee is far safer inside the refinery on his job than he is at home!*

To arrive at a happy situation like that, some tremendous work has been done by management, acting on the advice of all staff groups. Proper ventilation has been supplied where needed, along with good lighting. Regular "safeguard" tests are made on employees who work with potentially dangerous materials to keep harmful enemies at bay. Correct work methods are prescribed and followed. A great deal of the work space has been air-conditioned for comfort and health. Studies are even being made on refinery noise! Already, at some locations, screeching steam or clanging metal has been converted into a quieter companion for those who work around it.

The industrial hygiene group works closely with the Departments of Health in all states and communities in which the Company operates. Last year, at the request of employees, the Texas State Department of Health made detailed inspections of Baytown Refinery's mammoth air-conditioned Central Shops, where many mechanical crafts are housed under one roof. Among other information carried in the Department's final report, these statements were made:

> ". . . It can be very positively stated that no hazardous concentration of chemicals or metals was found in the working atmosphere of the refinery shops building.
>
> ". . . Illumination levels at work surfaces were found to be adequate and within the permissible limits.
>
> ". . . In a careful comparison of the environmental facilities, the control of potential hazards and provision of health and medical facilities . . . we feel that your company is among the more modern and is to be commended for the concern it is continuously indicating for the health of its employees."

Humble management, the Medical Division, and its industrial hygiene staff could not hope to enjoy a higher tribute than the one paid in that official pronouncement. In it lies praise for a job well done, as well as reassurance to employees that their health is being guarded as closely and carefully as human skills and the best equipment will allow.

The J. A. Way...

LEARNING BUSINESS BY DOING BUSINESS

Seventeen Houston teenagers, guided by Humble advisors, experiment successfully in free enterprise laboratory

TIME was when the average youngster's orbit of business experience began with Horatio Alger success stories and ended in daydreams of teenage tycoonery. Even if he wanted to, he had little chance to learn about business organization and procedure, and as for "free enterprise"—he probably could spell it.

Now, thanks to a 37-year-old national youth movement called Junior Achievement, there've been some changes made. Now, American youth are learning business by doing business. They are chartering miniature enterprises, experiencing success or failure and, sometimes, finding their lifetime work. Those who know say this program is strengthening the American way.

Junior Achievement was conceived in Springfield, Massachusetts, back in 1919, by the late Horace A. Moses, then Chairman of the Strathmore Paper Company. The program was incorporated in 1926, revamped in 1942 from a handful of handicraft clubs to the present "laboratory for free enterprise."

The typical J. A. company is made up of 15 to 20 Achievers, ages 15 to 21, and operates amazingly like an actual corporation. Each company, with only a nine-month lifespan, starts from scratch. All members, including the elected officers, work to produce and market a product or service. They sell stock, keep books, pay themselves 15 to 25¢ an hour and liquidate at the end of the school year. If successful, they declare dividends and bonuses. They are guided, but not pushed, by adult advisors active in business.

The Metal Engineering Company (MECO) of Houston, sponsored by

Obviously pleased with plaque-winning Annual Report are MECO officers (top left, clockwise) Hans Brandt, Jr., Donald Telschow, Margaret Vernaci, Mary Lou Keen.

Luncheon speaker M. J. Rathbone, President, Standard Oil Company (New Jersey), lauds Junior Achievement program before members of New York Stock Exchange.

Stock Exchange President Keith Funston presents First Award plaque to MECO President Brandt. In foreground is Port-A-Pit, Metal Engineering's product.

Humble Oil & Refining Company, is one of the 2,280 junior corporations operating in the United States. Officials of the New York Stock Exchange, a strong supporter of Junior Achievement, last month honored MECO's 1954-1955 Annual Report to Stockholders as the nation's best.

Witness to this is a large plaque hanging in the Houston office of Junior Achievement, Inc. The most exclusive prize in J. A. competition, this Annual Report Award is considered pretty much the ultimate by Achievers. Presentation is based on the Annual Report itself and not on the monetary success of the company (theoretically, a company losing money could win), but MECO's 24-page, illustrated report showed profit as well as clarity and completeness. In fact, Metal Engineering's record, pointed up with a series of charts, graphs and written reports, would rival that of many a bigtime corporation.

As part of the Award, MECO officers were sent as guests to New York City to accept the plaque. Highlight of a five-day whirl of activities was the presentation luncheon presided over by Stock Exchange President Keith Funston. Advisors Eugene Smith, William Steen and R. C. (Bud) Barton accompanied MECO President Hans Brandt, Jr., Vice Presidents Mary Lou Keen, Donald Telschow, and Treasurer Margaret Vernaci.

In competition with more than 40,000 other members of Junior Achievement throughout the country, the seventeen Achievers of MECO came through in fine Texan style—it was the first time the honor had been accorded representatives of the Lone Star State. But Metal Engineering's path from Houston J. A. headquarters, where the company was organized, to the canyons of Wall Street was not an unrocky one:

On September 14, 1954, these seventeen youngsters from five Houston high schools met to form the 54-55 version of MECO, a corporation name used by Humble-sponsored organizations since 1951. With them as advisors were five adult employees of Humble—Smith, Steen, Barton, Jack Battle, Ren Kraft—men steeped in the production, sales and accounting facets of business.

On that first night, MECO selected as its product a portable charcoal grill,

named it Port-A-Pit, immediately applied for a charter, and voted 200 shares of $.50 par value capital stock to finance initial purchase of raw material, space and equipment to begin production.

The selection of Port-A-Pit, built around a butane tankend, was by no "eeny, meeny, miney, mo" process. Several other metal products, including a grocery cart, were considered, but a survey showed a demand for a cooking utensil for outdoor living which would market for $10 or less.

Too, the grill seemed readily adaptable for assembly line production. The first unit of Achievers would process the raw materials. A second group would do the actual assembly work. A third and final team would make up the painting and packaging division.

Port-A-Pit therefore seemed to meet the two prime specifications for any successful J. A. product: (1) It *must* be comparatively simple to build. (2) It *must* sell.

MECO's success was keyed to the adaptability of a saleable product of assembly line production. Here, two Achievers cooperate to paint portable barbecue grill pit.

ON paper MECO was an assured success. But it soon plunged into a chasm of complications—just as the fathers of Junior Achievement knew, and hoped, it would.

Some of the bottlenecks were more humorous than troublesome. One Achiever, responsible for ordering several hundred one-fourth inch rods, instead called for "four-inchers." His face was red as the lettering of the MECO trademark when a six-wheel truck arrived with several thousand dollars worth of steel. Solution: "Send 'em back."

A problem of a more serious nature involved the wire grill which covers the butane tankend. Certain Houston manufacturers asked as much as $4 to produce this part—too much for MECO to sell a unit for $9.95 and realize a profit. Solution: A wire works in the tiny town of Shiner, Texas, agreed to turn out the grills for as little as $1.35 if MECO would take 200. It meant floating a loan through a J. A. junior bank—a business gamble—but Metal Engineering never looked back.

Once Port-A-Pits rolled smoothly off the production line, emphasis shifted to selling. During October—the award-winning Annual Report shows—sales were disappointing. But an aggressive sales campaign—centered around a contest to determine the best salesman —was rushed into the breach. Spring sales rose and made liquidation in the black possible.

Final result? All three hundred Port-A-Pits sold. Net sales? Almost $3,000. Net profit after taxes? About $625. This meant a 20 per cent dividend to the 65 friend-and-neighbor stockholders and a bonus to Achievers.

As one of Houston's three original sponsors of Junior Achievement, the Humble Company's association with MECO and its forerunners has been pleasant and educational. Not once has a company lost money. Meanwhile, they have produced such useful and varied products as utility carts, potato bakers and Christmas tree stands. The story of a MECO television antenna which retailed for $4.95 was featured prominently in a recent *Readers Digest* article. This year, the company already is producing and selling Sport-Eze, a folding cushion and back rest.

The most valuable returns cannot be placed on the right hand side of a dollar mark, however. When it is considered that (1) Almost 100 U. S. communities participate in Junior Achievement, (2) That 7,000 company representatives serve as advisors, and (3) That in Houston alone, those directly influenced by eleven years of J. A. include more than 43,000, it becomes clear that the import of the program, as well as its size, is snowballing.

C. E. Reistle, Jr., Vice President and Director of the Humble Company, is also President of Junior Achievement of Houston, Inc. He sums it up:

"To me, Junior Achievement is building a reservoir of understanding among young people about free enterprise. It is developing in them a pride of self-reliance, ownership, craftsmanship and accomplishment, along with an appreciation of the fundamentals of our incentive system of business. I know of no other organization that has a more worthy objective than to preserve the principles which have allowed us in this country to develop and enjoy the highest standard of living ever known."

Meanwhile, 1955-56 Junior Achievement moves on. Already, assembly lines are humming—and goods are being produced. Services are being advertised, used and paid for. Teenagers are learning more about business than Horatio Alger ever told them—and once again upholding the principle behind Junior Achievement's purposeful motto: "Building Through Business for a Better America."

The Texas Capitol

HOW IT WAS BUILT

IN 1875, Texas could breathe a bit easier and look hopefully to better things. For almost 40 years, toil and insecurity had marked her struggle through periods of political infancy and adolescence. After the time of travail, of birth by revolution, had come an unstable decade when the fortunes of the young republic balanced delicately on a razor's edge.

As a new state, Texas found herself continuously torn by Indian troubles and the other growing pains of securing her frontier. And before those were completely resolved, civil war had burst upon her, followed by the problems of Reconstruction. But the mid-seventies began to promise happier times and clearer skies for Texas. Now she could devote herself more productively to the growing needs of a growing population.

High on Texas' "urgent" list was a suitable state house. But, though the need was great, money was short. In the end, Texas fell back on her greatest resource at that time—land. Late in 1875, at the Constitutional Convention in Austin, delegate J. R. Fleming made a resolution that the state set aside five million acres of public land for the purpose of building a capitol.

The resolution failed to carry. Some thought this was too much land, even for a capitol to serve a state the size of Texas. After discussion by the delegates, a counter-resolution was made a few days later, reducing the figure to three million acres. This brought on further debate, with some advocating a return to the original five-million-acre figure and some favoring a reduction to only one million acres. But the Committee on State Affairs, apparently pleased with the second resolution, recommended an ordinance approving it. The convention passed the resolution, and it was included in the constitution which was ratified by the people of Texas in February of 1876.

Passing a resolution was a long way from building a capitol. Indeed, it was a long way from passing a law which would appropriate the land. This latter task was put off until three years later. On February 20, 1879, the legislature appropriated 3,050,000 acres of land in ten Panhandle counties. Title to the land would go to anyone or any group that agreed to build a suitable capitol in exchange for the land. Two months later, a law was passed authorizing actual construction of the building.

Under the law, a Capitol Board was set up to accept bids for a contract to survey this vast area. On the board were the Governor, the Comptroller, the Treasurer, the Attorney General, and the Land Commissioner. Bids were to be made on the basis of surveying the land into Spanish leagues of 4,428 acres each.

But where was the money coming from to pay the surveyors? Again, it would come from the sale of land. The law of 1879 had provided that 50,000 acres would be sold to pay the cost of surveying, but stipulated that no land be sold for less than fifty cents an acre. J. T. Munson, whose bid of $7,440 won him the surveying contract, took the field with a survey crew in the fall of 1879. N. L. Norton, appointed by the Capitol Board, accompanied Munson to examine the land carefully, note its grass and water, and reject any part of it he thought unfit for use.

Very little was known by white men of the vast area

Munson and his men had to survey. It had been shown on some maps simply as "The Great American Desert." Actually, it was a great grassy plain, unbroken by trees and generally unwatered, except by the Canadian River and small creeks. In earlier days, an abundance of game made it a prime hunting grounds for Comanches and other tribes who lived off the buffalo. Frequently, it sheltered Mexican bandits and other outlaws. Neither its climate nor its natural resources made it particularly attractive for white settlement at that time.

By September of 1880, Munson had completed his job of surveying the three million acres into Spanish leagues, and his report, with field notes and maps, was sent to the Land Office. It was about time, then, to sell those 50,000 acres and pay for Munson's work.

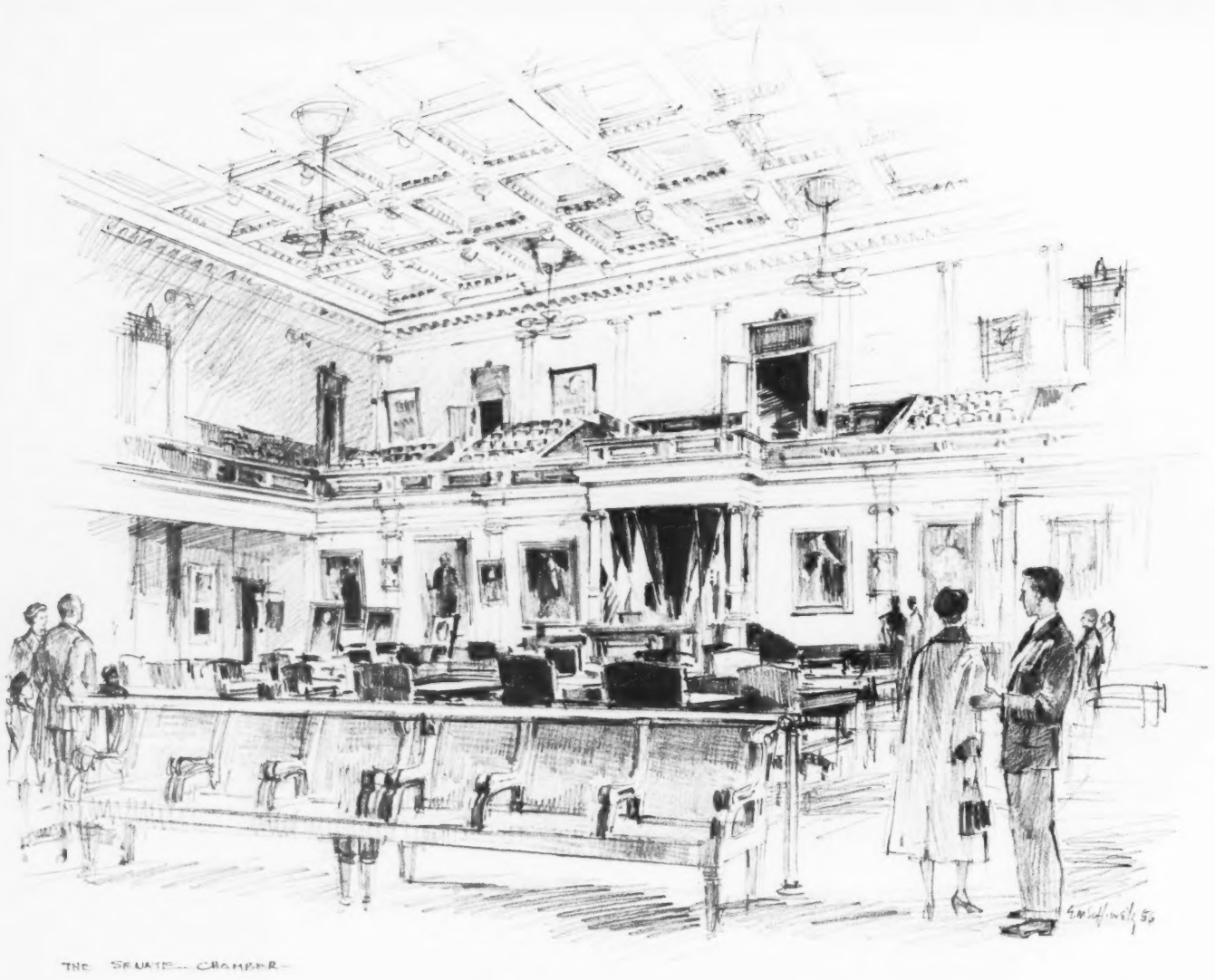
Bids for that much land were received just before Christmas in 1880. To show that the offer found few takers, only two bids were received, and both were rejected. There was nothing to do but advertise for bids again. This time, only one bidder came forth—W. M. D. Lee of Fort Elliott—who offered 55½ cents an acre for 50,000 acres in Oldham County. The state promptly accepted Lee's bid, and put into the public school fund the money left over after paying Munson.

Texas was delighted to get so high a price for the 50,000 acres. And Lee must have had some doubts about the wisdom of his purchase, for a few months later he hedged his investment by selling one-half of the land for exactly what he had paid for it.

WITH the land surveyed, the next step was to invite building plans. Eleven plans were submitted, and a New York architect was engaged to study them and recommend the one he considered best. He chose the design submitted by Elijah Myers, of Detroit. Building Commissioners Joseph Lee and N. L. Norton supported the architect's recommendation and the Capitol Board approved it in May, 1881.

In November, 1881, something happened which put spur to the plans for a new capitol. In that month the old capitol burned. The board lost no time in specifying New Year's Day, 1882, as the date when bids for a new capitol would

LOOKING NORTH TOWARDS ROTUNDA - FROM LOBBY



THE SENATE CHAMBER

be received. Two bids were submitted; one by Mattheas Schnell of Rock Island, Illinois; the other by A. A. Burck of Rockdale, Texas.

Schnell was awarded the contract. For the building he agreed to construct, he was to get the three million acres of land. Schnell, however, soon transferred three-fourths of his interest to Taylor, Babcock and Company, of Chicago, who organized the Capitol Syndicate. Members of the Syndicate were Abner Taylor, A. C. Babcock, John V. Farwell, and Charles B. Farwell. The group chose Taylor to act as its representative in carrying out the provisions of the contract.

AS always, in great undertakings of that time, a great deal of difficulty and effort lay between the signing of the contract and the completion of the building. There were contract troubles, labor troubles, troubles with materials. Although the ground was broken (under terms of the contract) on February 1, 1882, no materials were placed on the ground until the end of the year.

According to the architect's plans, the capitol would be built of native limestone from quarries near Austin. This proved unsatisfactory. Limestone from the Austin quarries contained too much iron pyrites, often called "fool's gold." When the mineral was exposed to air, it broke up chemically, staining the stone with ugly, rusty-looking streaks.

For a time, it appeared that Indiana limestone would be imported to build the Texas Capitol. But the contractors finally agreed to use Texas granite, provided the state would furnish the stone free and build a railroad so the granite could be hauled from the Granite Mountain quarry to Burnet. From Burnet it would be shipped by rail to Austin.

Even then, all problems were not solved. The state had also agreed to furnish convict labor to repair the road from Austin to Burnet. Organized labor strongly opposed the idea of competition from convict labor. And to make matters worse, difficulties had grown up between the contractor in charge and the International Association of Granite Cutters. After some deliberation, the Association voted to boycott the job, and told all granite cutters to stay away.

The contractor countered by sending to Scotland for cutters. Eighty-six Scottish cutters were brought to New York, with transportation expenses paid. Trouble awaited them at New York. Here they were met by Union representatives and a U. S. Marshall and told that they would be violating

the recently-passed Alien Contract Labor Law if they went to the Texas job. Sixty-two of the cutters refused to be swerved from their purpose and proceeded to Texas. The other 24 obeyed the boycott.

No sooner had the Scots begun work than organized labor brought charges against the Capitol Syndicate. Judgment was finally rendered in favor of labor in 1887, but the amount was pared down from $1000 plus costs in each of 60-odd cases to a total of $8000 plus costs. A penalty of $500 was assessed against the contractor and his Aberdeen representative.

With labor and materials troubles finally resolved, the cornerstone of the capitol was laid on March 2, 1885—on Texas Independence Day. But it took three more years to complete the whole building, which was opened officially on May 16, 1888.

Modeled on the same lines as the national capitol in Washington, the Texas Capitol is built in the form of a Greek cross, with projecting center and flanks, and with a rotunda and dome at the intersection of the main corridors. It is 566.5 feet long, and over 288 feet wide, and towers over 300 feet from grade line to the top of the figure of justice which stands above the dome.

For her 3,000,000 acres of land, Texas got a capitol which cost $3,744,630.60. Of this amount, the state assumed more than half a million dollars, leaving the Syndicate's expenses $3,224,593.45. Thus, in effect, the state received slightly more than a dollar an acre for the land—at least twice as much as the going price for choice watered lands at that time, and perhaps four times the price of unwatered land. It looked like a good bargain at the time, and it was.

And what became of those three million acres, now parts of Dallam, Hartley, Oldham, Deaf Smith, Castro, Parmer, Lamb, Bailey, Cochran, and Hockley counties? The investors in the Capitol Syndicate Company, finding that they were unable to sell the land, even at a loss, decided to hold on to it until increased immigration raised the value of the land to make it possible for them to sell without a loss. Until such time, they concluded, the land would have to be operated as a ranch.

First of all, money had to be raised by the Syndicate to stock and operate the ranch, which became known as the XIT Ranch (some said the XIT letters came from the expression, "Ten in Texas" because the ranch covered all or parts of ten counties). To do this, the Capitol Freehold Land and Investment Company was incorporated in London, with an authorized capital of fifteen million dollars.

Those who bought the English bonds owned shares in the investment company, but not in the ranch itself. The latter continued to be operated by the Capitol Syndicate. By 1909 the Farwells had redeemed most of the bonds of the investment company and it ceased to exist. In 1915, the final accounts were paid and the Syndicate itself was dissolved. By then, most of the great XIT Ranch had been broken up and sold into smaller ranches and farms, or had been swallowed up in the progress of a newer and modern Panhandle era. What remained went to heirs of the Farwells and to other shareholders in the United States. After surviving some shaky periods in its early existence, the XIT Ranch at last made a small profit for its owners.

A TOUR OF THE TREASURES

THE Texas Capitol is more than a seat of government; more than a fountainhead of laws. With its treasures of Texana, it acts like a lodestone upon even the "summer soldier and the sunshine patriot." And those who enjoy deeper drafts of history may stand again and again before the capitol's paintings, sculptures, and documents, each time finding something they had missed before.

Texans and tourists by the scores visit the capitol daily on an informal, drop-in basis. And every year, in the spring, it becomes a high-domed Mecca for formal student pilgrimages. In an average year, more than 20,000 Texas school children troop solemnly through the capitol corridors, pausing here and there to examine something which gives life to the pages of their textbooks.

Neither the casual visitor nor the member of an organized group need go blindly and at random through the capitol. On the first floor, a receptionist will give anyone who requests it a brief, general, written guide on where to look for points of interest. On the second floor, an employee of the Texas State Library endears herself to school children by passing out a facsimile of the State Seal, a picture of the capitol, a map of Texas, and a reproduction of Col. William B. Travis' stirring appeal for aid from the beleaguered Alamo.

In addition to these aids for visitors, school classes and other groups may avail themselves of a guided tour through the capitol conducted by Capitol Police Guards.

Appropriately enough, as a visitor enters the capitol he finds underfoot the names of Texas battles. Here, in metal letters set in the terrazo floor of the foyer, are recorded the battles which forged a Mexican province into a sovereign republic.

At the place of honor, at front and center, lies the name *Gonzales,* where the first battle of the Texas Revolution was fought on October 2, 1835, after the Gonzalians refused to return a cannon to the Mexican Government. Not far away lies *Bexar,* commemorating the siege in December, 1835, in which Ben Milam was killed in the assault on San Antonio.

Studded about the foyer floor are reminders of other disturbances and battles which preceded the Revolution itself—names like *Anahuac* and *Velasco,* where as early as 1832 the colonists began to show signs of armed discontent against Mexican rule. Names like *Goliad* and *Coleto* recall the heroic efforts of patriots like George Collingsworth, James Fannin, Philip Dimmit, William Ward, and the martyred men who were massacred at La Bahia.

Then comes the *Alamo,* five simple letters in the capitol floor symbolizing the efforts of Travis, Bowie, Crockett and the other Texas immortals who enshrined themselves in the hearts of their countrymen by sacrificing themselves in a heroic, last-ditch stand against Santa Anna.

Rounding out the revolutionary period is *San Jacinto,* where in the brief space of 18 minutes Sam Houston and his army at last put the Mexicans to rout and won freedom for Texas.

But the roll call of battles on the capitol floor does not end here. Calling up the thunder of distant guns during the

Mexican War are *Palo Alto* and *Palmito,* both fought near the Rio Grande in the Texas-Mexico borderland. And reminiscent of the War Between the States are the battles of *Galveston* and *Sabine Pass,* the latter giving fame to the name of Dick Dowling.

Other treasures and memorabilia of the foyer come in pairs—two paintings, two statues, and two documents. On the right wall hangs a painting of David Crockett, U. S. Congressman from Tennessee, bear hunter, spinner of yarns, defender of the Alamo, and every schoolboy's hero.

Across from Davy's picture, on the opposite wall, hangs the oft-published painting of Santa Anna surrendering to General Sam Houston. The time, of course, was April 22, 1836, the day after the battle. Houston rests beneath an oak tree on the battlefield, his injured ankle swathed in bandages. Before him, a prisoner, stands the crestfallen Santa Anna, garbed in the clothes of the common soldier, a disguise he had assumed in trying to escape. A sharp and knowing eye finds more than the principal figures clearly identified in this painting. For example, the brilliant scout, Deaf Smith, stands to one side, a hand cocked to one ear as he strains to listen.

Also in this front room are life-size statues in white marble of Stephen F. Austin and Sam Houston—both masterpieces from the talented hands of Elizabet Ney, German-born sculptress who had received commissions from the royalty and great men of Europe before moving to Texas in 1872. The statues were originally created for the Texas Exhibit at the World's Fair in 1893, but only one was completed in time for the exhibit.

The document which claims the principal attention of visitors just before they leave the foyer is a photographic copy of the original Texas Declaration of Independence, signed at Washington-on-the-Brazos on March 2, 1836. This document was first deposited with the U. S. Department of State in Washington. It was returned to Texas in 1896, but was not displayed publicly in the capitol until March 2, 1930. It now reposes in the security of a steel safe in the Texas archives.

Across the room from the Declaration of Independence is framed a photographic copy of the Ordinance of Secession by which Texas joined the Confederacy. Sam Houston bitterly opposed secession, and refused to recognize the authority of the Secession Convention. The Secession Convention then deposed Houston as Governor. Quietly giving up his office, he retired to his farm near Huntsville and died on July 26, 1863.

The rotunda, or room directly under the dome of the capitol, is always a popular point of interest for visitors. Looking some 300 feet straight up, one has an uninterrupted view inside the great dome.

On the stone floor of the rotunda are arranged in circular order the seals of Spain, Mexico, France, the Republic of Texas, the Confederacy, and the United States. The "Texas star" occupies the center of this arrangement.

On the walls of the rotunda, beginning on the ground floor and circling clockwise and in chronological order up through several floors, are portraits of all Texas heads of state. These begin with portraits of Provisional Governor Henry Smith and President *ad interim* David G. Burnet. After them appear portraits of all full-time presidents of the Republic—Sam Houston, Mirabeau B. Lamar, and Anson Jones. Then, in the order in which they served, hang portraits of all Texas governors since J. Pinckney Henderson took up office in 1846. Not yet among the group is a picture of the incumbent, Governor Allan Shivers.

THE WEST WING - TEXAS STATE CAPITOL AT AUSTIN

BEFORE leaving the first floor, most visitors like to stroll down the corridor of the West Wing, which houses the offices and library of the Attorney General—elected for two years and often called "the people's lawyer." His office, which employs 44 lawyers, was created as a state office in 1845, taking the place of a similar office in the Republic.

Among the duties of the office are to give legal advice to the governor, department heads, state institutions, and the legislature. The Attorney General also represents the state before the Supreme Court and the Court of Civil Appeals. He examines and approves county, city, and special district bonds, serves on a number of state boards, and carries out a multitude of other legal duties.

Also on the first floor are the offices of the State Treasurer, elected to serve a term of two years. It is the duty of the treasurer to receive and keep state money, maintain accounts of receipts and expenditures, collect certain taxes, and serve as *ex officio* member of a number of state boards.

In a basement under the capitol, but not considered a part of it, is the treasury vault. Here, behind a massive 28-ton door, repose more than a billion dollars in securities, but not one cent in cash! The decision to keep no cash here and the security precautions around this vault may recall memories of June 11, 1865, when the Treasury Robbery took place. On that day, bandits broke into the treasury office, intent on stealing some $300,000 in specie and U. S. coupons. Volunteers who pursued the robbers wounded several and captured one man. The rest escaped with only about $1,700.

The visitor might well begin his tour of the capitol's second floor with an inspection of the Governor's reception room. At one end of this spacious room stands a beautiful mirror given to Texas by the French in 1889. Also in the reception room, and of considerable interest currently to school children, is the personal desk of David Crockett.

North from the reception room is the Texas State Library, first established in 1839 by joint resolution of the Third Congress of the Republic of Texas. Valuable books and manuscripts went up in smoke when the previous capitol burned in 1881, and the long task of rebuilding the Library and its contents was begun in 1891, largely under the aid and influence of Gov. James Stephen Hogg. Historians, teachers, writers, and others interested in Texas history find the Library's collections of Texana valuable sources of material. The Texas State Archives, a part of the Library, are housed nearby in the State Highway Building.

ON the second floor are the two bodies of the legislative branch of state government. Occupying the west side of the building is the House of Representatives, whose 150 members are elected to serve a term of two years. All bills on taxation must originate in the House of Representatives, though other bills may originate in either the House or the Senate.

The Speaker of the House, who is elected by the membership, occupies a rostrum at the front and center of the House. On the wall behind the Speaker and to his left is a portrait of Sam Houston. Immediately behind him is the original battleflag of Col. Sydney Sherman carried at San Jacinto. A female figure of Liberty adorns this flag, with the words "Liberty or Death" on a ribbon draped over a drawn sword. To the Speaker's right is a portrait of James Stephen Hogg, first native Texan to be elected Governor.

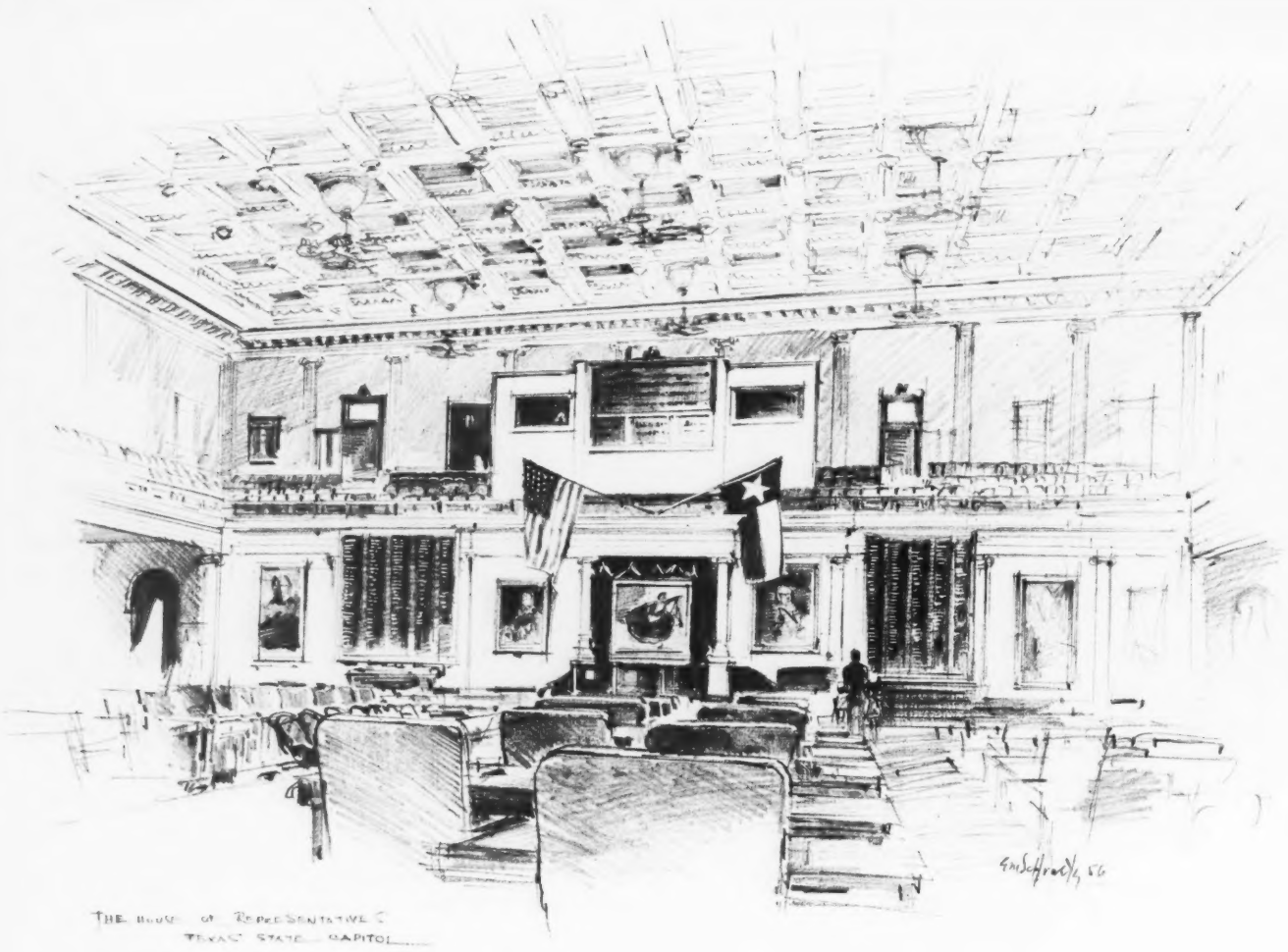
Just across the building from the House is the Senate Chamber, whose 31 members are elected to serve a term of four years. Presiding over the Senate is the Lieutenant Governor, elected by a state-wide popular vote.

After passing through a small foyer which features portraits of prominent Texans, the visitor enters the main Senate Chamber. On the rear wall of the Chamber, at the right, is H. A. McArdle's famous painting, "Dawn at the Alamo," a vivid canvas which captures all the furious action of the final assault. On the wall at the left is McArdle's companion painting, painted in similar vein, of the "Battle of San Jacinto."

On the right wall is a portrait of the lady who is sometimes called "the Betsy Ross of Texas." She is Johanna Troutman, a Georgia girl who, in 1835, helped raise the Georgia Battalion which came to Texas under command of Col. William Ward. For the battalion, Johanna Troutman designed and made a flag of white silk, bearing a blue, five-pointed star and the words "Liberty or Death." In the portrait, Miss Troutman holds the flag on her lap.

The third floor of the capitol is given over principally to the judicial branch of the government. At the north end of the building on this floor is the Court of Criminal Appeals, created by amendment to the Constitution in 1891, and presided over by three judges and two commissioners. This body has the distinction of being the first court of exclusive criminal appellate jurisdiction ever created.

On the west side of the third floor is the Texas Supreme Court. As established in 1845, the Supreme Court consisted of a Chief Justice and two Associate Justices. Today, the Supreme Court is composed of nine justices and has civil jur-



isdiction only, exclusively appellate, with limited exception.

Apart from these two courts, the Texas judicial system is further composed of 11 Courts of Civil Appeals with three justices each; district courts, which are principal trial courts of original jurisdiction; county courts; and justice of the peace courts. In a sense, county commissioner's courts might be considered a limited part of the judicial system, but the affairs of these courts are concerned only with fiscal and administrative affairs of the county.

A FITTING end to any tour of the capital is a brief stroll through the capitol grounds. Flanking the main walkway which leads up to the capitol from the head of Congress Avenue are four statutes: The Confederate Dead Monument was erected in 1901. Bronze figures on its base represent President Jefferson Davis, three Confederate soldiers, and one sailor.

The Volunteer Firemen Monument was erected in 1896 by the State Firemen's Association. A bronze figure on a granite base shows a fireman sheltering a frightened child in the crook of his left arm, with a lantern clutched in his right hand.

The Terry's Texas Rangers Monument was erected in 1907 in honor of the Eighth Texas Cavalry, an independent unit of the Confederate Army. Across the walk from this monument is the Alamo Monument, erected in 1891, showing a young Texan holding a long rifle. On its four sides are written the names of those who died in the Alamo.

On the west lawn of the capitol is the Texas Cowboy Monument, presented to the state by its sculptor in 1925. It was first exhibited in Paris, and won acclaim there.

The Capitol Greenhouse, opposite the east steps, is open to the public. Near it, on the east lawn, is the Monument to Hood's Brigade, a granite shaft topped by a bronze Confederate soldier.

Twin cannons—short, snub-nosed weapons—stand on each side of the south entrance of the capitol. These are not to be confused with the famous "Twin Sisters" which Houston's army used with such devastating effect at San Jacinto. The capitol cannons, however, were used in the Texas Revolution and later in the Civil War. They were presented to the Republic of Texas in 1836 by Major General T. J. Chambers.

A tour of capitol and grounds such as the one suggested here takes time. But it is a richly rewarding experience and provides a full reservoir of memories to be enjoyed later. Here, in the hush of this stately building and its peaceful grounds, even the casual visitor must be impressed with the courage and unflagging zeal of those who made Texas a great state. And here, also, one must thrill to the feel of an undercurrent of the tremendous energy and vigor which continue to keep Texas great.

Compilers double-check population of a town to determine size of symbol to be shown on new road map; hand-drawn dummy of map is made first, then used as guide for final draft.

HOW HUMBLE ROAD MAPS ARE MADE

It takes months of painstaking work to compile and draft these dependable guides to pleasant traveling.

TO THE Mexico City police, the young man's actions seemed definitely suspicious. For more than an hour he had been observed quietly studying the area around the President's Palace and making notes on a sheet of paper. Finally, the officers collared him and hauled him off to the *juzgado* for questioning.

It took several hours of earnest explanation for the young man to convince the officers that he was not a dangerous character but a reputable employee of a map-making firm—General Drafting Company, of Convent Station, New Jersey. His mysterious note-taking was merely to verify some information to be included on the Humble Company's new road map of Mexico.

Of course, the employees of General Drafting Company, who make all of Humble's road maps, seldom land in jail, but they spare no effort short of incarceration to assure the accuracy of their maps.

And it is largely because of this thoroughness that Humble road maps are always so much in demand by travelers in the Southwest and Mexico. Last year, for example, the Company distributed more than a million maps among motorists who requested them from service stations or the Humble Touring Service. A gratifyingly large percentage of these requests were from friends and customers who had used Humble maps before, and knew they could rely on them.

The making of a good road map—one that is both accurate and easy-to-read—is not a simple task. Take, for example, the popular Humble road map of Texas, considered by many motorists as the most useful map of the state available anywhere. The original of this map was compiled by General Drafting Company in 1950, but hundreds of changes have been made in it since. Keeping the map up-to-date year after year is a tedious and painstaking task, especially in these times of accelerated highway construction. Actually, more miles of new roads have been added to the Texas map in the past five years than were shown on the first map of the state distributed by Humble. Farm to market roads have been the main additions. Although the map is corrected and reprinted each year, changing traffic patterns make the choice of such roads a difficult one.

Corrections and revisions are made in master drawings as new information is received, some of it from on-the-site checks.

Power erasers save time and work in tedious task of correcting map; one change often necessitates moving several names.

A new road map of this type usually represents an investment of more than $20,000 before a single copy is printed for distribution. It takes months to do the necessary research, compiling, editing, drafting, and checking.

First, the map must be carefully planned to suit its purpose. What size will it be? How will it fold? What color schemes can be used? These are factors which have a strong influence on the map's usefulness. They become mighty important to the motorist who eventually finds himself wrestling with the folds of the map within the narrow confines of his automobile and trying to read the route markings under the dim glow of the car's dome light. Humble's map makers try to make it easy for that man.

After the general plan of the map has been decided, and a dummy approved, the compilers start work on the first draft, which, for convenience, is made twice the size of the finished map. Information from every known reliable source is examined and checked by the compilers before it is included in the map. Thus a typical Humble road map may contain data gleaned from U. S. Geologic Survey sheets, U. S. aeronautical charts, planning-survey county maps, city engineering maps, highway traffic studies, postal guides, railroad guides, census reports, and many other sources.

Since there is usually conflicting information in the source materials, a man in the field makes an on-the-site check. Only by first-hand observation can the map-makers be certain of the facts. It was this kind of mission that landed the young man in jail.

In compiling a map like the Texas road map, General Drafting usually starts with large-scale detail maps, such as the individual county maps prepared by the State Highway Department. So detailed are these maps that they show every crossroads community, every farm house, and even the windmills on the farms. The compilers like to have this accurate detail to work from, although most of it must be eliminated in the final road map for the sake of legibility.

THE first step is to photograph each of the county maps in reduced scale, and then carefully fit the negatives together like a large jigsaw puzzle. The resulting mosaic is used to make a "blue-line" print, similar to an ordinary blueprint except that the background remains white and the lines appear in faint blue.

Now the draftsmen go to work, carefully tracing in black ink on the blueline print all the features that the compilers have decided to retain in the final map. These include towns, cities, highways, streams, coastlines, and many other features that will interest and inform the eventual user of the map. In this first draft, all name lettering is done by hand, although some attention is given to relative type sizes.

When the first draft is finished—complete with distance tables, index, route numbers, and point-to-point mileage figures—another blue-line print is made. This step automatically eliminates all of the unwanted details shown in blue on the original base map and reproduces only the things which have been inked in by the draftsmen.

Although every stage of the work to this point has been carefully checked and re-checked, copies of the first draft are now sent out to various field contacts for review and suggested changes. Few errors get past this review undetected. A glaring exception, however, was a mistake which showed up in the 1951 Texas map. This map showed State Highway No. 7 as completed from Kosse to Marquez when actually it was still in the planning stage. Humble and its map makers could take some solace from the fact that the same mistake appeared in all other Texas maps printed that year.

After the compilation section has corrected all errors, the working dummy of the map goes to the draftsmen to be re-drawn in final form.

Here again, the lines are inked in over a blue-line print, but the draftsmanship is done with more exacting care than in the first draft. All the names which were hand-lettered on the working dummy are printed in type on the final draft. This is done either by setting live type in special holders and stamping it in place by hand, or by printing the names on transparent tape and then sticking the tape into position. In either method the size and style of type is carefully specified for legibility and to help in-

Front cover painting and other art subjects for the new road map are prepared by members of the art department while compilation and drafting work is in progress.

dicate the relative size of the town.

When the final draft has been finished and re-checked for accuracy, it goes to the camera room. Here exact scale negatives are made up, and all the art sketches are stripped into their proper position. The color separations are made, then transferred onto lithographic plates, and the map is ready to go to press.

Even in these final stages, however, it is possible for an error to occur. Humble and General Drafting found that out one year when the Texas map appeared with the name of the town of Graham omitted. When the mistake was pointed out with some feeling by the citizens of Graham, a check-up was made immediately to see how the error got by. The name appeared on the final draft, but not on the printed map. Somehow, in the color separation stage of production, a blot of opaque ink had blanked out the word. Needless to say, the town of Graham is the first name on the map to be checked by the map-makers on the press proofs each year since.

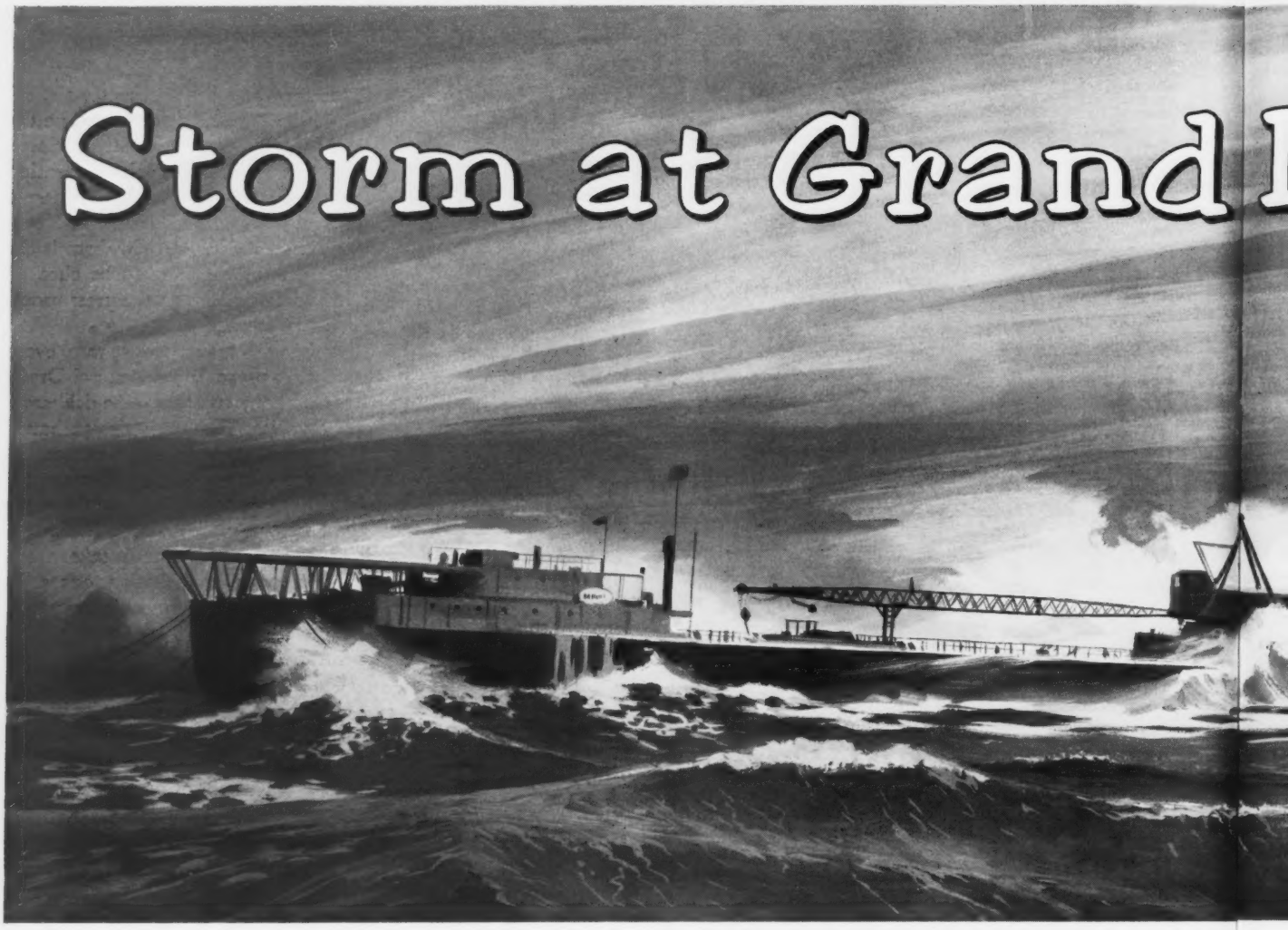
Although such errors are rare, every road map prepared by General Drafting Company contains some deliberate inaccuracies. These are always harmless things, such as a non-existent island or minor stream, and they are put into the maps to help protect the copyright of the map makers. If, for example, somebody should take a notion to save compilation costs by merely copying a Humble map and adding his own data, the plagiarism could be exposed by pointing out these tell-tale features.

One fact is certain. Anybody who uses a Humble road map to guide him on his travels can be confident that his map is as accurate as it is humanly possible to make it.

Name, printed on transparent tape, is carefully floated into position on final draft; sometimes names are stamped by hand.

Press sheets are checked frequently during printing run; four maps are printed in four colors on one sheet, then cut apart.

Storm at Grand I



At height of the storm, as shown in this artist's co

Hurricane warnings create no excitement here because procedures have been planned in advance

THE message reached Grand Isle by telephone at 7 a.m. last July 31. In Humble's production headquarters on the coast of Louisiana, a stenographer typed the data and hurried it down the hall, where the district superintendent was holding a regular morning meeting with his assistants and tool pushers.

A New Orleans weather advisory service, to which Humble subscribes, had sent the message. The superintendent read:

"The low pressure area over the Northeast Gulf yesterday has continued to intensify gradually during the night. A rotating wind system has been established. It is possible that this disturbance will intensify into a tropical storm during the next 36 to 48 hours."

The men grouped around the desk

ist's conception, the ST rides safely at its moorings; all operations have halted, equipment has been secured, and personnel moved ashore.

showed no surprise, no excitement. It was hurricane season. Storms were to be expected. Here was just another of the many operational problems involved in finding and producing oil in the Gulf of Mexico.

If this particular storm were unusual, it was because it was born inside the Gulf—probably no more than 300 miles out. Most hurricanes, spawned far to the southeast in the Caribbean, have small chance of catching Humble's offshore operations off guard. For by the time such hurricanes enter the Gulf, they have long since been pinpointed, analyzed and prepared for. The storm which makes up close to home gets the sharpest weather eye from Grand Isle personnel. This was such a storm.

When the meeting broke up and the tool pushers rode helicopters to their drilling tenders, the ships were already pitching in moderately rough seas. This was a storm that might never materialize. The center of the disturbance was not yet located. But it was clear that the blow was making up close to home, and some rough weather was in store at best.

The tool pusher—any tool pusher in the Gulf off Grand Isle that day—prepared immediately to secure all cargo, cover the ship's hatch, and close necessary water-tight doors.

Long before an immediate storm threat hung over the Gulf, the tool pusher and his men had started preparing for just such an emergency. From the start of the hurricane season, they keep their business in shape so that they can suspend operations and, if necessary, evacuate all personnel with a minimum of lost time.

At 9:30 a.m. that day the tool pusher took a call by radio telephone from headquarters on Grand Isle. Another advisory had come in:

"Ship reports indicate that disturbance has intensified to small tropical storm. Upper atmosphere conditions are very favorable for intensification of storm. It is possible that disturbance may intensify to small hurricane causing 50 to 80 mph winds along Coastal Louisiana late tonight. Resulting swells would be 15 to 25 feet in height."

Center of the storm was still in doubt at this time, but it was thought to be

Closing main hatch in preparation for storm is a three-hour job. (These pictures were staged for photographer by crew members to demonstrate routine procedures.)

Casing, racked on deck of the ST, is securely lashed down with strong cables as storm approaches the area; all crew members will go ashore to wait out the blow.

not much more than 100 miles south southeast of Grand Isle.

Closing of the hatch amidships requires about three hours and is done with the aid of a 35-ton crane. Operation of the crane is restricted after waves reach five to eight feet. So the job must begin early.

Steel beams are hoisted into position across the hatch. Then hatch covers are fitted between the beams. The pusher gave orders to cover the hatch about three-fourths over, then hold off, so drilling mud or pipe could be lowered through the hatch.

Another advisory came at 1 p.m.:

"Tropical storm located at 12 noon about 120 miles south southeast of Burwood, Louisiana (about 40 miles east of Grand Isle on the coast) and is stationary. Forecasted movement from 12 noon to 6 p.m., west northwest at 10 mph. Ship located 40 miles south of center reported squall with 55 mph wind and rapidly falling barometer at 11:30 a.m. Winds 40 mph extend 100 miles north of center. Winds expected to increase to 50 mph with possibility of gusts to 80 mph and 15 to 25 foot swells at exposed locations on southeast Louisiana coast tonight."

If the storm continued along its forecasted course, Grand Isle would feel the worst of the blow. So little doubt was left that operations would have to be shut down and personnel evacuated until the storm had passed.

Attention now was turned to preparing the rig. The driller pulled his bit back up into the casing. Drill pipe coming out of the hole was racked and lashed in the derrick. Blowout preventers, as well as a big four-inch valve on top of the drill pipe, were closed. All drilling lines were made fast, and the rig cleared of personnel. The platform it rests on was built to withstand wind and waves of maximum force.

The offshore operations area around Grand Isle was now buzzing. Converted Coast Guard cutters, or AC's had long since plowed out in the Gulf to tow in bulky oil barges from producing wells, all of which had been shut in. Helicopters were evacuating personnel except those needed in the shut-down operation; they would be picked up later by the AC's.

Wives of Humble employees on the island rounded up children and saw that all belongings in their two story homes were stored upstairs.

Company families were given the opportunity to move into New Orleans or some other inland city during the storm. Few went, and these only because they had business inland and didn't wish to be caught on the island and miss an appointment. Most had ridden out hurricanes before on Grand Isle. All have a great respect for tropical storms.

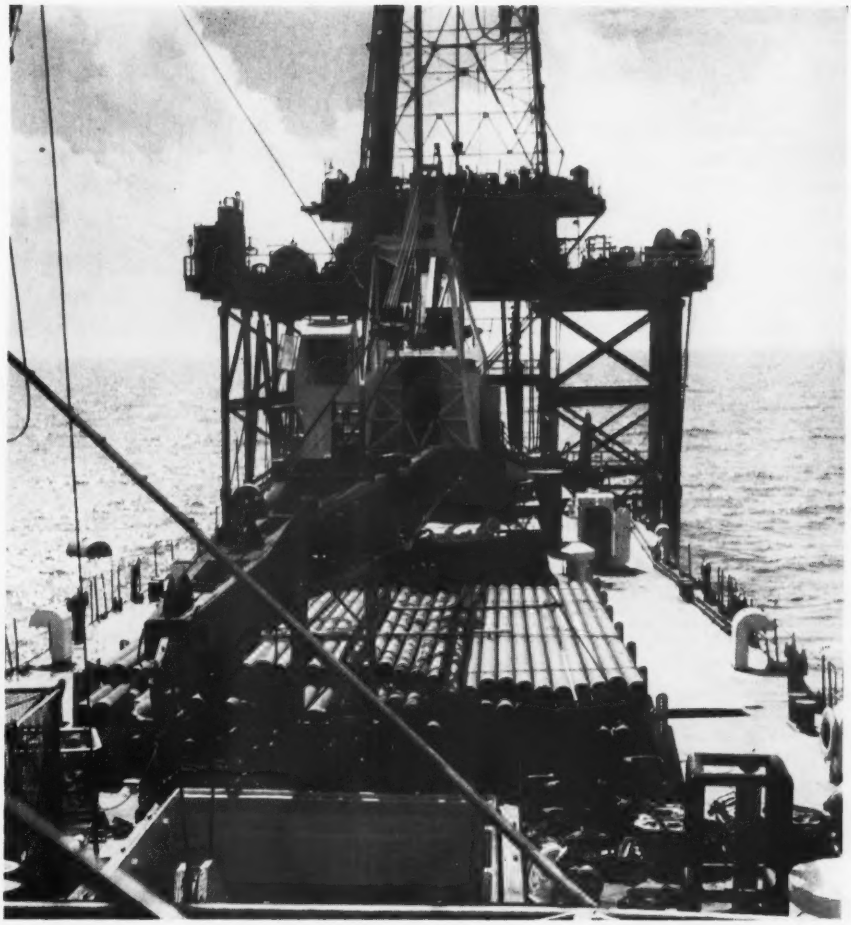
On the ST, the tool pusher now completed covering his hatch. Seas were already up to about eight feet. Time, then, to raise the bow ramp—the "bridge" which crewmen use to cross from ship to drilling platform. A snaking winch on the back of the platform, rigged with lines over the derrick and back down to the ramp, lifts the ramp up and clear of the ship. This done, the men cross from ship to ramp on a jacob's ladder, wearing life jackets.

Advisory, received 4:10 p.m.:

"Storm located about 115 miles south southeast of Burwood and moving west northwest at 10 mph. Maximum winds 40 mph but ships in storm report 55 mph winds. Disturbance expected to intensify . . . causing wind, sea and tide conditions described in previous advisories. Winds over lower Mississippi Delta now 45 mph with squalls and eight to 10-foot easterly swells at exposed locations."

All connections now between ship and drilling platforms were disconnected, but storm preparations were not complete. The ST must now be pulled back, at least the distance of the derrick's height, to ride out the storm.

An ST has no propellors, but it can be maneuvered by means of its mooring winches. A Humble ST has four such winches forward and four aft, equipped with heavy anchor chains attached to spud piles driven in the ocean floor. By slacking off on one set of chains, then, and pulling on the other four, the ship can be moved away from the platform. Once back, she must be maneuvered with the winches to head her bow into the wind.



Crane would be secured in this position during a storm, but the ST would be backed off a safe distance from the stationary drilling platform shown in background.

NOW men began to leave the ST. Those who hadn't left earlier in helicopters were transferred to an AC, a sturdy converted Coast Guard cutter which can weather almost any blow.

The tool pusher is always the last to leave the ST. With one of the ship's crew, he took a last tour of the ship. Are all the blowers below deck shut down? Any vents to topside left unplugged?

It was long after dark that the tool pusher and his engineers secured the last door and went aboard the pitching AC. So now the platform and the ship were evacuated, and all crewmen were on the way in to wait out the storm ashore.

Advisory, received 9:30 p.m.:

"Tropical storm located at 9 p.m. about 95 miles south of Burwood and moving west northwest 10 mph. Maximum winds reported by Navy plane in storm center at 60 mph. Conditions previously outlined expected to develop."

So Grand Isle personnel turned in that night with a storm almost in their laps. But they could feel satisfied with the day's work. Not a man was left out in the Gulf. All was battened down and secured. Not a job was left undone.

Whether the night was an anticlimax is a matter of opinion. Some rough winds and waves raked the island that night and the following day, but the storm never reached hurricane force. As the early morning weather advisory disclosed on August 1, the storm—with maximum winds of about 55 miles an hour—veered northward when it approached shore, passed almost directly over Burwood to the east and blew itself to death across the mainland. Nobody was hurt; no appreciable damage was done. Grand Isle had weathered another storm.

Advisory, received 7 p.m., August 1:

"Center of disturbance is now inland and weakening. Wind and swells expected to commence decreasing tonight on southeastern Louisiana coast. Advisory will be discontinued . . ."

And by August 2—just 48 hours after the first storm advisory was issued—producing wells were flowing again, ST's were manned once more and rigs were back to drilling off Grand Isle.

Humble's 1955 Net Income Up

Preliminary estimates of Humble's operations in 1955 indicate a net income of about $175,000,000, or $4.88 a share, compared with $146,303,000, or $4.08 a share, in 1954. These figures were announced by President Hines H. Baker on February 9 in a letter to the Company's shareholders.

Since the Company's Annual Report will not be ready for mailing until the end of March, Mr. Baker also gave the following highlights on the 1955 operations:

An increase in demand was a principal factor in the favorable showing in 1955. Humble's net production of petroleum liquids, including crude oil, condensate, and gas plant products, amounted to 142,300,000 barrels, an increase of 7 per cent over 1954, despite the fact that proratable wells in Texas again were allowed to produce only 53 per cent of their maximum efficient rates. The Company's refinery runs, pipe line deliveries, and gasoline sales also increased substantially.

Capital expenditures approximated $210,400,000, an increase of $49,200,000 over 1954. In addition, exploration expenditures charged currently against income were $81,600,000, including $38,000,000 as the cost of dry holes. Capital expenditures included $46,500,000 for leases acquired and $26,600,000 for the purchase of two synthetic rubber plants formerly operated for the Government.

Finding activities during the past year were reasonably successful. Discoveries, revisions, and extensions were sufficient to replace production and to provide net gains in both oil and gas reserves.

The outlook for 1956 indicates a continued high level of operations for the industry. Total demand for petroleum products in the United States is expected to increase still further, although less than in 1955. Texas production is expected to be higher as a result of additional drilling, although the number of producing days allowed for proratable wells may be lower. If the current prospects for industry are realized, Humble's operations in 1956 should continue at a high level.

TEXAS IN REVIEW

"Texas in Review," Humble's weekly television program about Texans and the things they are doing, was four years old on February 4. Featuring human interest subjects, rather than short news events carried on regular newscasts, the program's growth in popularity reflects both the appeal of the subject matter presented and the expansion of television in Texas.

An estimated 175,000 people watched the first show on four TV stations in February, 1952. Now surveys indicate that more than 1,000,000 viewers each week tune in to see stories with an unusual Texas flavor.

The 30-minute show goes on 22 Texas TV stations each week—two each Sunday, nine on Monday night, and ten on Tuesday evening. One educational TV station in Houston telecasts the program on Friday.

HUMBLE PAY INCREASE

Humble Oil & Refining Company and Humble Pipe Line Company announced on January 31 to all employees not represented by bargaining agencies that effective February 1 wage rates of hourly-rated employees were increased 6 per cent with a minimum of 15 cents an hour. Classified salaries were increased by 6 per cent or not less than $26.00 a month.

The Companies made the same offer concerning wage increases to all bargaining agencies representing Humble employees.

During recent months throughout Humble's operations, employees have made requests for additional compensation. Consideration of these requests and recent actions by others within the industry were the basis for making the pay increase.

PIPE LINE PROMOTIONS

Four promotions in Humble Pipe Line Company supervisory personnel in the Houston Office were announced in January.

Preston D. Phillips, Jr., chief engineer for the past five years, was appointed assistant general superintendent.

Frank O. Stivers, assistant chief engineer during the same period, was made chief engineer.

Charles P. Endress, who has been assistant division head in Pay Rolls since November 1, 1950, became assistant treasurer.

James E. Oliver, chief clerk in the Operating Department since October 16, 1944, was named assistant coordinator in Personnel and Policy.

NEW SOUTHEAST DIVISION SALES MANAGER

A. O. Saenger, assistant division sales manager of Southeast Division, has been named division manager to replace C. C. Scott, who resigned January 1 to devote all his time to his ranching business.

Mr. Scott, who will live in Wimberly, came with Humble in 1935 as a pilot. He became manager of the Southeast Division in 1947.

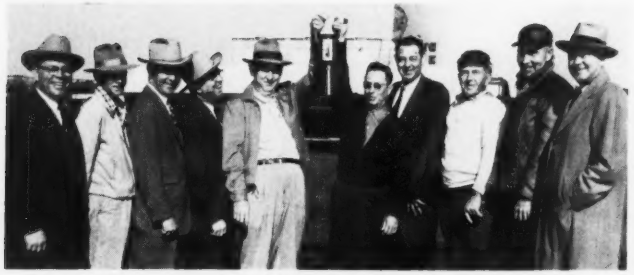
Mr. Saenger began working with Humble in 1934 as a salesman in Galveston. He returned to his home town of Beaumont as general clerk and stenographer in 1935, became warehouse supervisor at Baytown two years later, and city salesman there the next year. He attained the rank of colonel during his military career in World War II. He became assistant division manager in 1949.

40 YEARS WITH HUMBLE

Frank L. Carpenter, district superintendent at Raccoon Bend completed 40 years of service with the Company on February 15.

Walton B. Killough, senior engineer, Baytown Refinery, completed 40 years with Humble on February 3.

A BILLION GALLONS



Billionth gallon of petroleum products at North Texas Products Terminal is held proudly aloft by pipeliners Carl Anderton and J. W. Floyd. Also enjoying the occasion are, left to right; Homer Bass, Claude Shivers, Duard Snodgrass, R. V. Rea, Anderton, Floyd, E. T. Peterson, H. L. O'Briant, L. M. Gage, and B. L. Cox. Later they held a banquet celebrating event.

A billion gallons is a lot of gasoline! About 4700 trains of 100 cars each would have to make the trip between Baytown and North Texas to carry the liquid products handled in the last nine years by Humble Pipe Line Company for the Dallas-Ft. Worth marketing area.

Humble's big North Texas Products Terminal, located at Irving on Highway 183 between Dallas and Ft. Worth, celebrated Billion Gallon Day on December 5 when the billionth gallon of petroleum products flowed through the terminal, the northern end of a 276-mile pipe line from Baytown.

The plant, which opened in 1946, is supplied from Baytown Refinery through an eight-inch pipe line, the first intrastate products line of such length to be built in Texas.

In 1948, some 400,000 gallons of aviation gasoline and automotive fuel moved through the line daily. Because of the rapid growth of the area, by 1954 the rate had more than doubled.

Recent Retirements

HUMBLE PIPE LINE COMPANY

Name	Location	Date of Retirement	Years of Service
William L. Adair	Anahuac	Dec. 21	29
Otis P. Albright	Midland	Feb. 1	30
Leonard R. Anderson	Midland	Feb. 8	26
Ambrose J. Bearden	Baytown	Jan. 17	30
James T. Bowen	Southwest Texas	Jan. 28	29
Wesley C. Clyburn, Sr.	Hawley Station	Jan. 21	28
James E. Jones	Ector Station	Nov. 21	27
Wm. R. Lauderdale, Sr.	Tomball Connection	Dec. 16	19
John S. Mulvey	McCamey	Feb. 1	30
Robert V. Thomas	Anahuac	Feb. 3	22
Frank B. Witt	West Texas	Feb. 14	34
HOUSTON OFFICE			
Edward L. Fitzgerald	Refining Accounting	Nov. 23	43
Frank J. Hammons	Refining Accounting	Dec. 1	34
Travis R. Medford	Pipe Line Accounting	Feb. 1	28
Zoe E. Leger	Sales Accounting	Jan. 30	26
Albert Scown	Production Accounting	Dec. 28	36
Fred L. Witt	Manager Sales General Office	Jan. 31	30
James J. Tegge	Stationery & Repro.	Feb. 1	29
PRODUCTION DEPARTMENT			
Ross W. Carr	Hardin	Dec. 30	26
Leon B. Fisher	Goose Creek	Jan. 14	29
Elmer S. Havins	London	Jan. 15	32
Carl L. Locke	Goose Creek	Feb. 3	33
Johnie A. Spencer	Sugar Valley	Dec. 21	25
BAYTOWN REFINERY			
Wade H. Atkins	Compound	Feb. 1	27
Ernest H. Bennett	Docks	Dec. 25	21
Robert L. Hewett	Service Laboratory	Jan. 14	27
John V. Hlanak	Boilermaker	Feb. 1	31
Lucious Johns	Coke Cleaner	Dec. 19	16
John J. Keenan	Service Laboratory	Feb. 1	35
Alfred D. Kelly	Pipe Fitter	Feb. 4	26
James H. Massey	General Foreman	Dec. 26	34
Claude F. McClelland	Pipe Department	Feb. 1	26
Martin L. Roden	Light Ends Dept.	Feb. 1	30
Grace M. Seydler	Employee Relations	Feb. 1	26
Julius R. Seydler	Mechanical General	Feb. 1	35

Deaths

Employees: Worth B. Alley, 58, section head in Humble Pipe Line Oil Accounting Division in Houston, on January 10; Manville C. Borne, 39, lease gas processor and gauger at Bayou Sale, Louisiana, on November 18; Edna S. Cleveland, 44, stenographer-special at Baytown Refinery, on December 13; John B. Colley, Sr., 51, roustabout gang pusher at Anahuac, on December 1; Clair J. Cressley, 50, issue and inventory clerk at Baytown Refinery, on November 25; Julius Fram, 50, research chemist at Baytown Refinery, on December 2; Martin W. Gantt, 47, pipeliner at Tomball Connection, on December 19.

Joe Lamb, 62, lease pumper-gauger at Goose Creek, on December 27; Luke R. Lee, 43, witness gauger at London, on December 4; John A. Northern, Sr., 61, watchman at London, on January 11; Odin W. Sheldon, 54, supervisory accountant in Production Accounting in the Houston Office, on December 1; Jack A. Ward, 55, instrument technician at Baytown Refinery, on November 28.

Annuitants: Henry Behrens, 73, former handy repairman at Baytown Refinery, on December 13; William N. Finnegan, 59, former executive assistant in the Houston Office, on December 28; Howard E. Humphrey, 66, former foreman at Baytown Refinery, on December 5; John H. Kobusch, 66, former statistical clerk in Sales-Market Research in the Houston Office, on December 23; Henry E. McDonough, 74, former valuation job order clerk in Pipe Line Accounting in the Houston Office, on November 22; William A. Mix, 57, former machinist at Baytown Refinery, on January 11.

James A. Rhodes, 50, former assistant coordinator of line tankage layouts at Baytown Refinery, on December 7; Richard E. Seagler, 72, former general attorney for Humble in the Houston Office, on January 6; William S. Shelby, 77, former pipe machine helper first class at Baytown Refinery, on December 22; James F. Shepherd, 61, former supervisor at Baytown Refinery, on November 26; Clarence M. Townsley, 66, former engineer in Humble Pipe Line Cisco District, on November 19.

Behind this issue

● Walter Beach, supervisor of Company publications, has a personal pride and interest in the Texas State Capitol (pages 8-14) which dates back to early childhood. At the age of nine, he went for the first time with his father to see the magnificent building. Here is Walter's story of that visit:

"Tears filled my father's eyes as he surveyed the great edifice from wing to wing. But it was not until much later that I understood his emotion. For, you see, my father took part in building the Capitol.

"He had come to this country from Germany as a lad of 18 in 1880. After working for several years as a baker's apprentice, he saved enough money to buy a small farm, complete with mules and wagons. When work started on the Capitol, he gained a sub-contract to haul foundation stone from the railroad station to the building site.

"My father was so proud of his adopted country, and of the small part he had played in building his state's capitol, that he could not look at the building without feeling a twinge of emotion."

● Another man who has developed a different interest in the Capitol is M. Walter Andrus, one of the Capitol Police Guards. Over the years, he has developed a hobby of collecting Capitol relics and souvenirs. Among other things, he has a medallion which was issued when the present Capitol was opened, and an old key to the former Capitol which burned to the ground in 1881.

● It seems somewhat anachronous that Humble's up-to-date road maps (see pages 15-17) are compiled and drafted in a building that looks for all the world like a 16th century Tudor castle. The ivy-covered structure at Convent Station, New Jersey, that serves as headquarters for General Drafting Company, is actually a replica of such a castle. It was built as a home estate by a wealthy Anglophile in 1914-17, and was purchased by the map-making firm in 1952.

Covering an acre of ground, the beautiful three-story mansion contains wood paneling and stained glass windows salvaged from famous old castles of England and Europe. There is even a dungeon, with iron-studded doors from an ancient prison. Except for improved electric lighting, the map-makers have made few changes in their castle. They like it just the way it is. And who wouldn't?

● When officers of Metal Engineering Company (see pages 5-7) were guests of the New York Stock Exchange in January, they primarily were interested in three things. (1) The First Award for an Annual Report to Stockholders, to be presented by Stock Exchange President Keith Funston. (2) The standard New York City sights—UN Building, Statue of Liberty, Empire State Building, etc. (3) A Broadway musical.

And the Texas group couldn't have been more pleased when northern-born Ray Serniak, their Stock Exchange host, sheepishly produced down front tickets to—of all things—"Damn Yankees."

● Any attempt by a writer to dramatize the story of a tropical storm and its effect on offshore operations at Grand Isle (see pages 18-21) is apt to be scoffed at by Humble's Production Department employees who work there. So far as these men are concerned, a storm is somewhat of a nuisance but nothing to get excited about. Theirs is not the feeling of men of the sea who thrill to the roll of a deck beneath their feet and the flying spray from white-crested waves. On the contrary, these are oil men, essentially landlubbers, intent on doing the same kind of job offshore that they normally would be doing on land. A storm is merely a hindrance, and they don't like to be hindered any more than the next man.

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HUMBLE OIL & REFINING COMPANY

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Masked welder and his helper create interesting study of light and shadow as their torch bites into metal in an oil refinery.